GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:2604
ANSWERED ON:05.08.2015
National Mission for Sustaining the Himalayan Ecosystem
Rai Shri Prem Das

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) the salient features and scope of National Mission for Sustaining the Himalayan Ecosystem (NMSHE) including the details of key focus areas under the Mission, implementation structure and funding targets for the 12th Plan Period;

(b) the key Mission targets for the current Plan Period and the details of progress achieved, year-wise and targetwise;

(c) the measures taken by the Government to operationalise the Mission in a timebound manner; and

(d) the details of other programmes/schemes/policies implemented by the Government for sustainable development of Himalayan Region including Sikkim?

Answer

MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE MINISTRY OF EARTH SCIENCES
(SHRI.Y. S. CHOWDARY)
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(gÃ‰Ã‰Ã’ Â´Ã‰Ã‰<Ã‡. AÂºÃ‰. SÃ‰Ã‰Ã¨vÃ‰Â®Ã‰Ã’)

(a) to (d): The salient features and scope of National Mission for Sustaining the Himalayan Ecosystem (NMSHE) including the details of key focus areas under the Mission, implementation structure is attached as Annexure-I. The Mission has been approved at a total cost of Rs. 550 Crores for the 12th Five year plan period. The details of progress achieved, year-wise and target-wise is attached as Annexure-II.
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- 2 -
Annexure-I
Objectives of NMHSE

The most crucial and primary objective of the mission is to develop a sustainable National capacity to continuously assess the health status of the Himalayan Ecosystem and enable policy bodies in their policy-formulation functions and assist States in the Indian Himalayan Region with their implementation of actions selected for sustainable development. This integrated objective would demand a) scientific assessment of the vulnerability of the Himalayan eco system to short and long term variability in the weather and climate in all its dimensions of physical, biological and socio-cultural aspects, b) research for framing evidence-based policy measures to protect the fragile ecosystem and c) time bound action programmes at state level in the Indian Himalayan Region in order to sustain the ecological resilience and ensure the continued provision of key ecosystem services.

Secondary objectives of the National Mission for Sustaining Himalayan Ecosystem identified within the overall primary objective are

â€¢ Networking of knowledge institutions engaged in studies on Himalayan Ecosystem and development of a coherent data base on the geological, hydrological, biological and socio cultural dimensions including traditional knowledge systems on preservation and conservation of the ecosystem

â€¢ Detection and decoupling of natural and anthropogenic induced signals of global environmental changes in mountain ecosystems and prediction of future trends on potential impacts of climate change on the Himalayan ecosystem with a sound S&T backup.

â€¢ Assessment of the socio-economic and ecological consequences of global environmental change and design of appropriate strategies for growth in the economy of the mountain regions and the lowland systems dependent on mountain resources in the region.

â€¢ Studying of traditional knowledge systems for community participation in adaptation, mitigation and coping mechanisms inclusive of farming and traditional health care systems

â€¢ Evaluation of policy alternatives for regional development plans towards sustainable tourism development, water and other natural resource management for mountain ecosystems in the region.

â€¢ Creation of awareness amongst stakeholders in the region for including them in the design and implementation of the

programme.

â€¢ Assisting the states in the Indian Himalayan Region with informed actions required for sustaining the Himalayan ecosystem,

â€¢ Development of regional cooperation with neighboring countries, to generate a strong data base through monitoring and analysis, to eventually create a knowledge base for policy interventions.

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Long term objective of the mission is to position a viable and self-learning knowledge system assisting the policy bodies and state authorities. This would require

a) Building human and institutional capacities in the different existing / new Institutions in the Himalayan region.
b) Identification of national knowledge institutions and development of a self sustaining knowledge network.
c) Development and adoption of new methods for assessing the health of the Himalayan eco system including those of glaciers and create a data base of the same.
d) Assessment and quantification of the changes in the Himalayan eco system attributable to the climate change as a result of global emissions and human activities in the region and model for future projections
e) Assessment and exploration of means of augmentation of the carbon sink potentials of the Himalayan eco system
f) Exploration of linking of traditional and formal knowledge systems through strategic mechanism of formalization for mutual benefit and value for the sustainability of the Himalayan ecosystem
g) Identification of most-desirable Adaptation Policies to Improve Regional Sustainability.

Mission Deliverables

NMSHE is a unique mission. It should develop self sustaining knowledge networks which are capable of permanently contributing to the national efforts for sustaining a fragile Himalayan ecosystem. NMSHE needs to provide a time bound action program for a long term self sustaining national activity. Sustaining Himalayan ecosystem needs to emerge as a societal undertaking at the end of the mission period. Therefore, deliverables of NMSHE are special. They will include:

Creation of a fund (of say Rs 1650 crores) for developing capacities for Sustaining Himalayan Ecosystem to serve the activities during the 11th and 12th plan periods

Establishment of a State of the Art National Center for Himalayan Glaciology complete with a provision for supporting Extra Mural Research in the glaciology

Identification and networking of all knowledge institutions in the region which possess the institutional capacity for studies on Himalayan eco systems

Derivation of codes of practices for knowledge coalition among networked knowledge institutions under various ministries as well as state Governments and community based organizations in thematic areas relating to the sustainability of Himalayan ecosystem

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Further Strengthening of selected (say 12) knowledge institutions with resources, manpower, governance and communication facilities for promoting deeper engagement of these institutions

Establishment of about 10 new centers in existing institutions in areas of knowledge gaps complete with special mechanisms and tools to create knowledge capacity for sustaining Himalayan ecosystem, particularly in the areas of Himalayan glaciology, ecology and biodiversity mapping, traditional knowledge systems, forestry for biological carbon capture, ecotourism services and policy research for developmental planning of a fragile ecosystem

Standardization of data collection systems for interoperability and mapping of natural resource wealth systems and positioning of a coherent data sharing and exchange framework among the participating knowledge institutions

Identification and training of about 100 experts and specialists in areas relevant to sustaining Himalayan ecosystem including about 25 glaciologists for research and development through and international training programmes

Positioning of a multi-centric training system for community based organizations to relate laboratory findings to the real field conditions and provide feed back to the knowledge institutions on the likely changes in Himalayan ecosystem

Annual Status reports on the health of various sub components of Himalayan Ecosystems

Training of at least 100 technical experts for carrying out environmental impact assessment on Himalayan ecosystem for various human activities in the region

Conduct of 25 programmes on capacity building for linking innovations from Traditional and modern Knowledge systems

Establishment of an observational network for monitoring and forewarning of changes in ecosystem in the Himalayan region.

Positioning of a framework for regional cooperation with neighboring countries in the area of Himalayan glaciology.

Bi-annual Advisories to Himalayan Sustainable Development Forum through State Councils for Climate change in Indian Himalayan States for actions for implementation

Establishment of a synergistic mechanism with other National Missions under
NAPCC.

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Annexure-II

S. No. Mission Deliverables Overall target for Mission Period
(2013-17) Achievement till
March 2015 Target for
2015-16 Achievements
(April 2015 − June 2015)
Remarks
(1) (2) (3) (4) (5) (6) (7)
1. 1. Networking and Strengthening of knowledge institutions 12 institutions 10
4 1 4 Institutions viz. Kashmir University, Jammu University, Sikkim University and JNU were strengthened under an Inter-University Consortium in Cryospheric research last year. 6 State level knowledge Centres one each in J&K, Himachal Pradesh, Sikkim, Manipur, Tripura and Mizoram have been established so far. 1 centre at Meghalaya have been set up this year.
2. 2. Start of new centres relevant to Climate change in existing institutions in Himalayan states 10 3
3 1 3 new Thematic Centres one each at GBPHIED, WII and JNU have been set up last year. 1 TF at ICAR have been supported this year. Other 2 from WIHG, Dehradun and NIH, Roorkee been finalised to carry out focused research in the identified themes for Himalayan ecosystem

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)(1) (2) (3) (4) (5) (6) (7)
3. 3. (a)Training in areas relevant to Himalaya eco system 100 persons 85
20
Being planned Two training programs in glaciology and related areas were conducted total for 55 trainees . Another training programme was organized on AdaptationPlanning and Implementation in Himachal Pradesh for 30 state level participants. Another specialized programme is being planned this year as well.
4. 4. (b)Training system for community based organisations to relate lab findings to real field 6 theme based 4 1 To be initiated Three training workshops including one major community event entitled 'Himalayan Day' were organized by lead institutions in North West, Central and North East Himalayan region for over 100 participants so far. One
5. 5. (c)Training of technical experts EIA 100 65 20 Being planned 40 EIA experts were trained last year. About 25 EIA specialists belonging to over a dozen institutions were given exposure of vulnerability, risks assessment and CC Adaptation in the Indian Himalayan Region during this year

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)(1) (2) (3) (4) (5) (6) (7)
6. 6. (d) Capacity building programs (training) 25 8 4 Being planned 4 Programmes/ workshops were organised during the last year including a Technical Workshop on 'Adaptation Planning and Implementation in the Indian Himalayan Region: Technical Support under NMSHE' for Himalayan States.
7. 7. Development of Observational Network to monitor the health of Himalayan eco system 1 1 0 0 India Meteorological Department under Ministry of Earth Sciences (partner Ministry under NMSHE) is implementing a meteorological observational network under Mountain Meteorology programme.
8. 8. Regional Cooperation with neighboring countries in Glaciology All neighbours (8)
1 1 Dialogues ongoing Action for setting up of a framework for regional cooperation being finalised with ICIMOD, Kathmandu

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)(1) (2) (3) (4) (5) (6) (7)
9. 9. Bi Annual advisories to Himalayan Sustainable Development Forum At least 2 advisories 7 1 Being planned 7 State CC Centre in J&K, Himachal Pradesh, Manipur, Mizoram, Tripura, Sikkim, and Meghalaya have been finalised for providing advisory.
10. Annual thematic status report 6 theme based /year 5 1 Work in progress 4 Thematic Status reports were brought out last year. One Report has been brought out this year so far.

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